

S I S E R I E S L O U D S P E A K E R S
I N S T R U C T I O N M A N U A L



WHARFEDALE SYSTEMS DIVISION



WHARFEDALE SYSTEMS DIVISION

SI SERIES LOUDSPEAKERS USER MANUAL

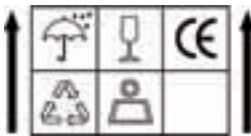
SI-10, SI-12, SI-15, SI-28, SI-15B, SI-18B

1. **READ INSTRUCTIONS** carefully before operating this product.
2. **RETAIN** these instructions.
3. **COMPLY WITH WARNINGS** - All warnings and instructions for this product should be adhered to.
4. **USE WITH AMPLIFIERS** - In order to avoid damage, it is advisable to establish and follow a pattern for turning on and off any sound system. With all system parts connected, turn on source equipment, tape decks, instruments, mixers, signal processors etc., BEFORE turning on your power amplifier. Many products output turn on and turn off transients that can damage speakers. By turning on your power amplifier LAST and making sure the amplifier's input controls are at minimum any transients "upstream" of the amplifier are not amplified and passed to the speaker. Wait until all system parts have stabilised, then bring up amplifier controls to operating level. This should take no more than a few seconds. Similarly when shutting systems down, always turn down amplifier input controls and then turn off your amplifier BEFORE shutting down other components. Professional amplifiers often feature delayed turn on/off circuits to perform these functions for you automatically.
5. **CABLES** - Never use shielded or microphone cable for any speaker connection as this will not be heavy enough to handle the amplifier load and could cause damage to the complete system.
6. **⚠️ RIGGING • SUSPENDING • MOUNTING**
The rigging, suspension or mounting of this speaker system can expose members of the public to serious health risks and even death. UNDER NO CIRCUMSTANCES ATTEMPT TO RIG, SUSPEND OR OTHERWISE MOUNT THIS SYSTEM UNLESS YOU ARE FULLY QUALIFIED AND CERTIFIED TO DO SO BY RELEVANT LOCAL, STATE AND NATIONAL AUTHORITIES. ALL RELEVANT SAFETY REGULATIONS MUST BE FOLLOWED. IF YOU ARE NOT PROPERLY

QUALIFIED OR DO NOT KNOW OF PERTINENT REGULATIONS, CONSULT QUALIFIED PERSONNEL FOR ADVICE AND ASSISTANCE.

The SI Series enclosures are fitted with M8 size threaded inserts. Use M8 bolts only in these inserts to suspend the enclosure. Make sure that you use forged shoulder eyebolts with a length of at least 30mm. Insert a flat washer between the eyebolt and the enclosure.

7. **⚠️ CAUTION:** These professional loudspeaker systems are capable of generating very high sound pressure levels. Use care with placement and operation to avoid exposure to excessive levels that can cause permanent hearing damage.
8. **SERVICING** - The user should not attempt to service this product except that mentioned in this manual.
9. **WARRANTY** - In the event of malfunction, contact your authorised Wharfedale Professional dealer or distributor for further information. The SI Series from Wharfedale Professional is warranted against manufacturing defects and/or materials for a period of three years from the original date of purchase. During that period Wharfedale Professional will at its discretion repair or replace product provided that the product itself is returned with notice to an authorised Wharfedale dealer. Wharfedale Professional will not be held responsible for any defects (or any consequential damage) resulting from modifications made by unauthorised service agents, Acts of God, improper use of the equipment or negligence on the part of the user.



Unpacking

All Wharfedale Pro products are fully checked before leaving the factory. After unpacking please inspect cabinets for any physical damage. Please retain the shipping carton if

possible and internal packing material in case the unit needs to be returned. Please check as soon as possible the unit is functioning. In the event of any damage please contact your dealer immediately so that a written claim for damages can be made.

Operating/Use

1. The SI Series accept cables with Speakon™ and bare wire and feature two Speakon™ type connectors and a barrier strip situated at the rear of each cabinet. These are connected in parallel. Take care to avoid adding too many SI speaker systems in series (this does not apply to 64T). Each series connected speaker increases the load on the amplifier and can add up to a total load that may exceed the amplifier's capabilities, leading to possible damage. Two 8 Ω loudspeakers in series make a 4Ω total load. Four 8Ω series connected loudspeakers make a total load of 2Ω, which is too low for many amplifiers.

2. Attach the speaker cable securely to your SI Series unit and power amplifier (the amplifier should be **off, power down mode**). Where possible use Speakon™ connectors as they are professional high current connections specifically designed for this application. Try to use the correct type of speaker cable according to the handling ability of your SI Series Cabinet. Use 2 core equal stranded insulated cable for speaker runs. It is always advisable to use heavier conductor cables on longer runs.
3. If using Speakon™, insert the speakon and rotate 1/8 of a turn until locked in. If using the barrier strip ensure the correct phase connection and secure with a Pozi-drive™/flat head screw driver.
4. Power up amplifier with levels on zero. Confirm units are operating.

FEATURES OF THE SI SERIES:

- Trapezoidal (SI-10 5 sided) Enclosure Design for multiple applications
- Compact High Power Handling
- Wharfedale Proprietary LF Driver
- 44mm Titanium Diaphragm true Compression Driver
- Spherical Waveguide provides consistent control over HF coverage 70x70° and effective array coupling
- 15mm MDF Construction with tough industrial acrylic textured finish
- Heavy duty steel foam backed grille
- 20 rigging/suspension mounting points (M8 thread)
- Dual Speakon™ type and Barrier strip connectors
- M8 Thread for Omnimount™ 100 type bracket
- Available in black or white

FEATURES OF THE SI SERIES SUBWOOFERS:

- Compact vented sub bass, low distortion, high efficiency
- High output, extended excursion 18" (460mm) driver
- 15mm (SI-15B) or 18mm (SI-18B) MDF construction with tough acrylic textured pain
- 12 rigging/ mounting points (M8 Thread)
- Dual Speakon™ type and Barrier strip connectors
- Available in black or white

SI SERIES OVERVIEW:

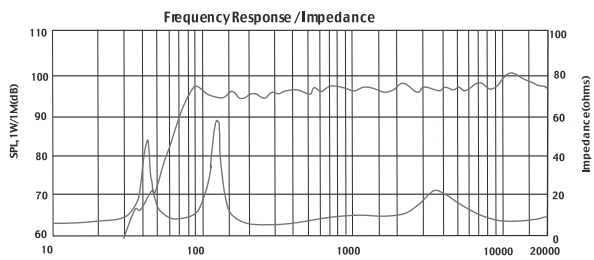
The SI Series comprises of the SI-10, SI-12, SI-15 and SI 28 full range systems plus two subwoofers - the SI15B and the SI-18B.

SI-10, SI-12, SI-15 and SI 28:

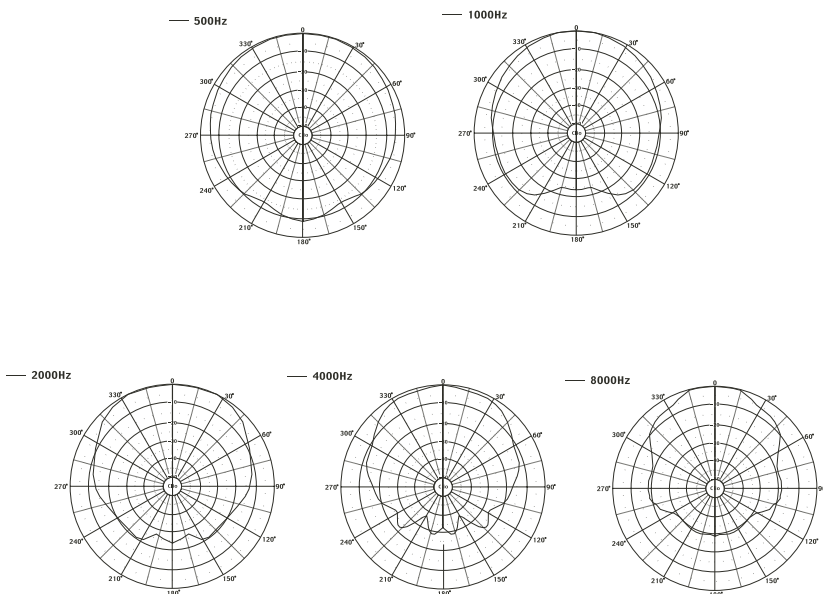
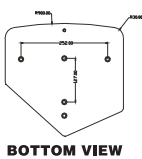
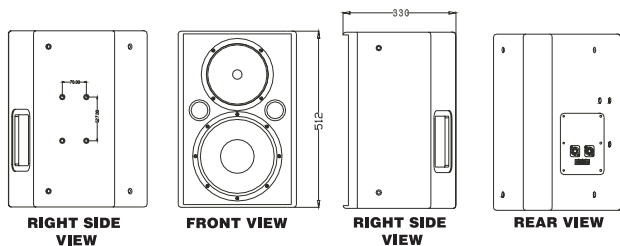
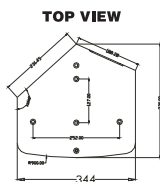
All the full range models are two way systems with an internal passive crossover providing high level , high definition performance in a compact enclosure. With a nominal 70 degree coverage pattern, the system can be arrayed for additional coverage and SPL requirements. The elliptical waveguide HF section provides consistent coverage over its specified range for low feedback in open mic applications and improved array smoothness. M8 flypoints (20 in total) on the top, bottom and sides allow ease of installation in both horizontal and vertical positions. The unique 5 sided multi-angle shape of the SI-10 makes it perfect for low profile ceiling mounting (or corner installation) or as a compact floor monitor.

SI-15B, SI-18B Subwoofers:

The SI-15B and SI-18B are compact sub bass systems designed for use with the SI-15, SI-12 and SI-28 full range loudspeakers in applications where extended low frequency output and increased system headroom are required. These powerful systems are capable of delivering high sound pressure levels with very low distortion over sustained periods. Superior output in extreme conditions is maintained through the use of effective dissipation mechanisms, avoiding the loss of power compression often found in other systems.



Horizontal Directivity



SPECIFICATIONS:

SYSTEM:

Power handling: 120watts RMS,240watts program, 480watts peak

Nominal Impedance: 8 Ω

Frequency response (+/-3dB): 65-20kHz

Sensitivity: 96 dB/1watt/1meter

Coverage: 70 x 70°

Maximum SPL (dB) ref Peak Power: 123dB

LF Driver: 10"

HF Section:

Coil Size: 44mm/1.7 inches

Exit Size: 25.4mm/1 inch

Diaphragm Material: Metal

Crossover Point: 2.3k

Enclosure Type: multi angle

Finish colour: black or white

Rigging : M8 x 20

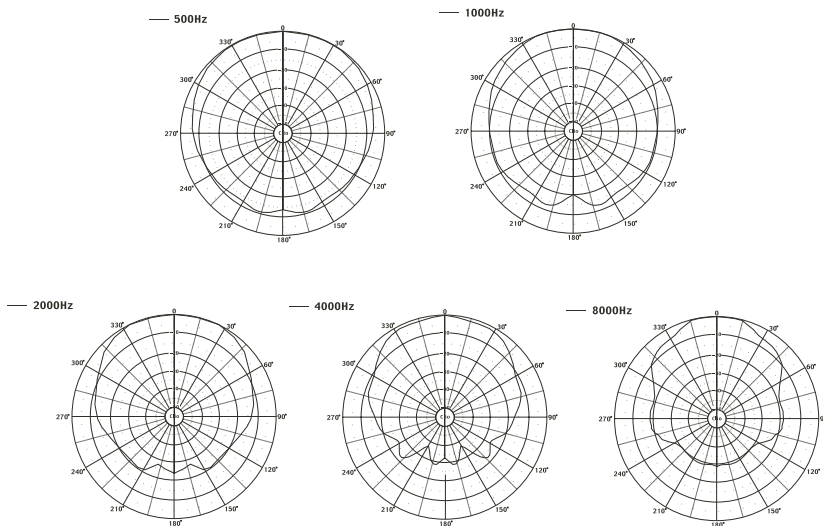
Back Panel Connectors: Speakon™ type x 2 and barrier strip

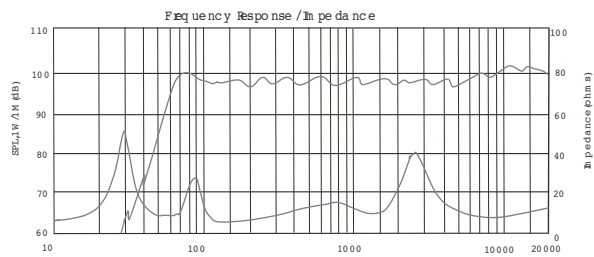
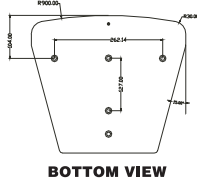
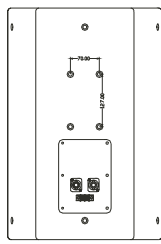
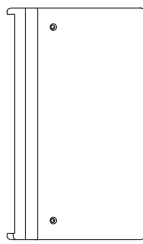
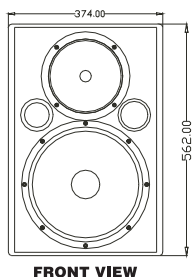
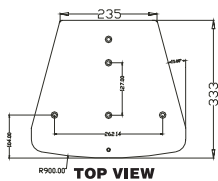
Dimensions mm HxWxD: 512 x 344 x 330

Dimensions inches HxWxD: 20.1 x 13.5 x 12.9

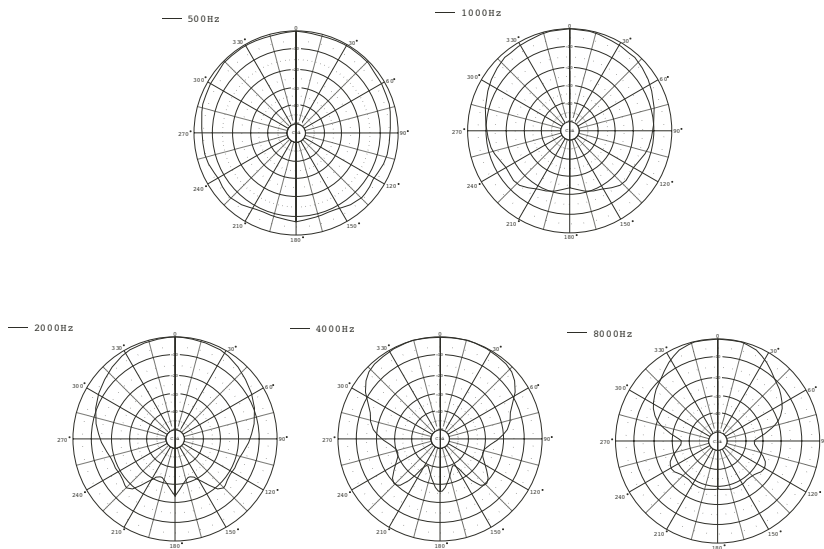
Weight: 14.36kg/32.3lbs

Vertical Directivity





Horizontal Directivity



SPECIFICATIONS:

SYSTEM: SI-12

Power handling: 250watts RMS, 500watts program, 1000watts peak

Nominal Impedance: 8 Ω

Frequency response (+/-3dB): 55-20kHz

Sensitivity: 97 dB/1watt/1meter

Coverage: 70 x 70°

Maximum SPL (dB) ref Peak Power: 127dB

LF Driver: 12"

HF Section:

Coil Size: 44mm/1.7 inches

Exit Size: 25.4mm/1 inch

Diaphragm Material: Metal

Crossover Point: 2.3k

Enclosure Type: trapezoidal

Finish colour: black or white

Rigging : M8 x 20

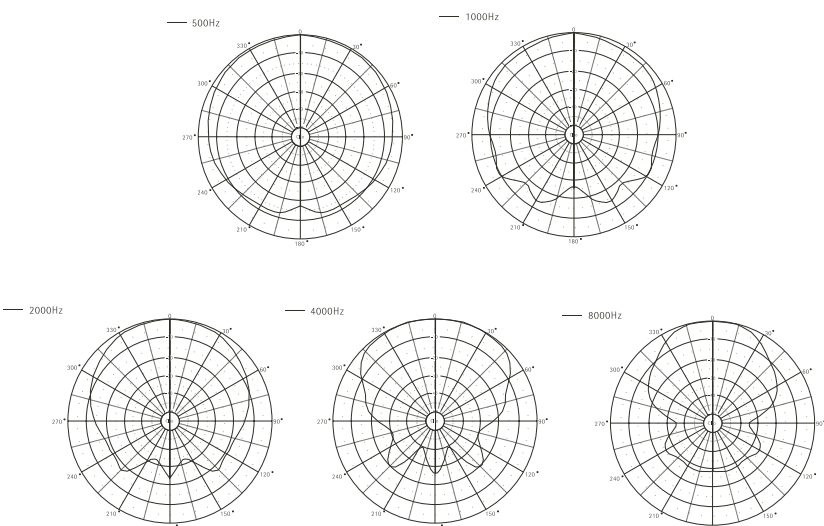
Back Panel Connectors: Speakon™ type x 2 and barrier strip

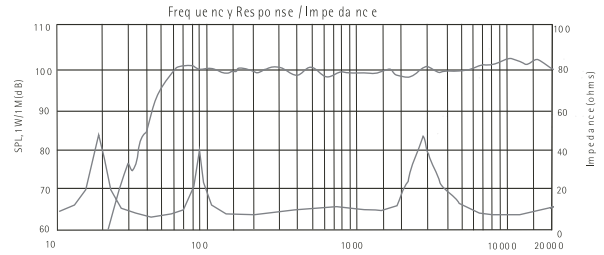
Dimensions mm HxWxD: 562 x 374 x 333

DIMENSIONS INCHES HXWXD: 22.1 X 14.7 X 13.1

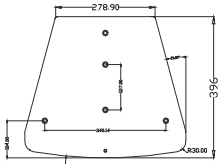
Weight: 16.26kg/36.6lbs

Vertical Directivity

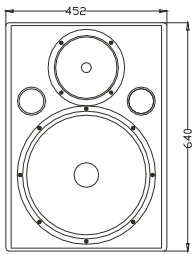




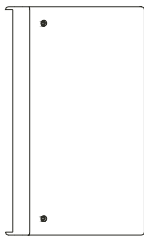
Horizontal Directivity



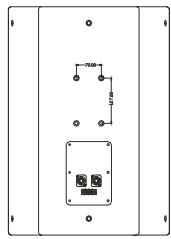
TOP VIEW



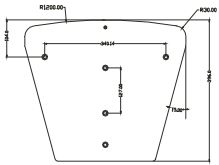
FRONT VIEW



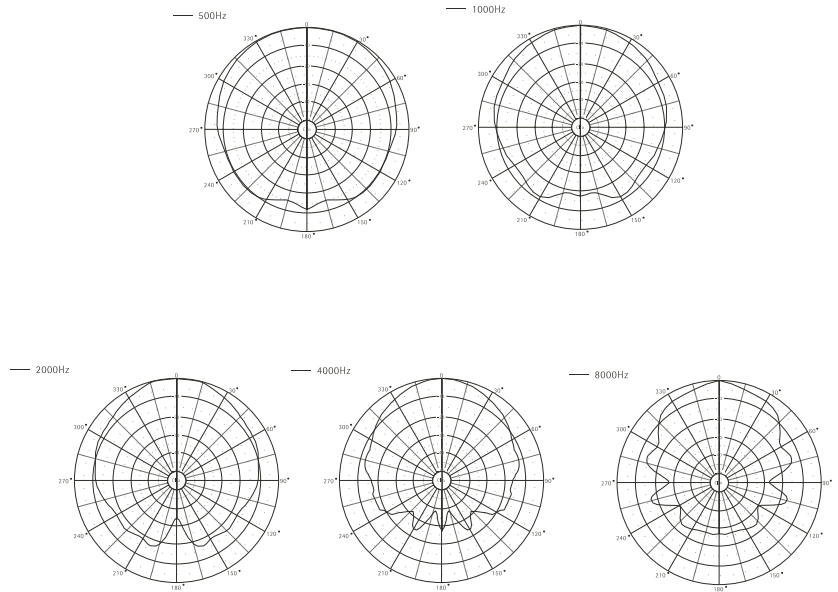
SIDE VIEW



REAR VIEW



BOTTOM VIEW



SPECIFICATIONS:

SYSTEM:

Power handling: 300watts RMS, 600watts program, 1200watts peak

Nominal Impedance: 8 Ω

Frequency response (+/-3dB): 45-20kHz

Sensitivity: 98 dB/1watt/1meter

Coverage: 70 x 70°

Maximum SPL (dB) ref Peak Power: 129dB

LF Driver: 15"

HF Section:

Coil Size: 44mm/1.7 inches

Exit Size: 25.4mm/1 inch

Diaphragm Material: Metal

Crossover Point: 2.3k

Enclosure Type: trapezoidal

Finish colour: black or white

Rigging : M8 x 20

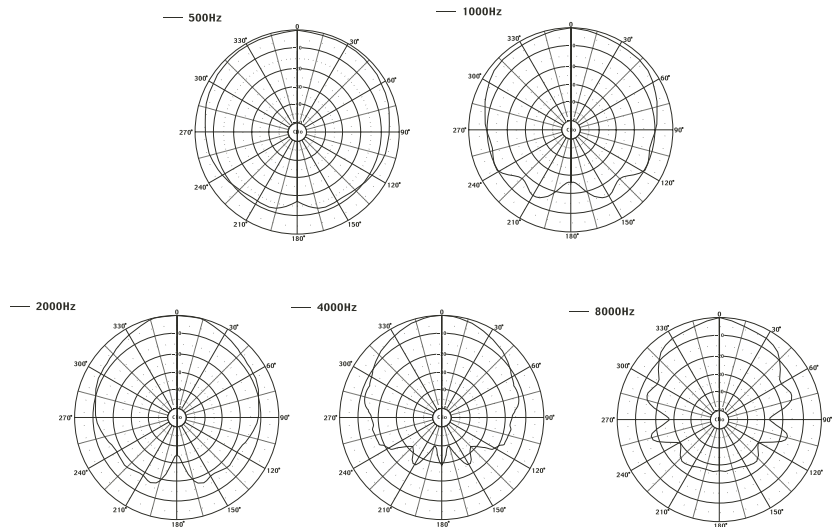
Back Panel Connectors: Speakon™ type x 2 and barrier strip

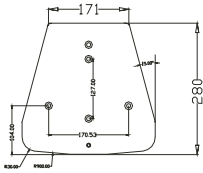
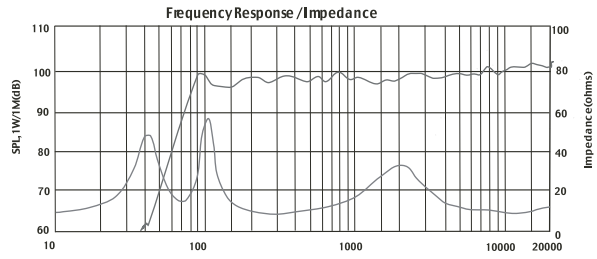
Dimensions mm HxWxD: 640 x 452 x 396

Dimensions inches HxWxD: 25.1 x 17.8 x 15.6

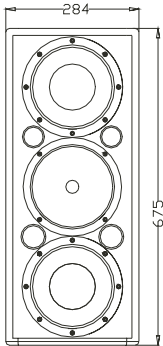
Weight: 23.48kg/52.8lbs

Vertical Directivity





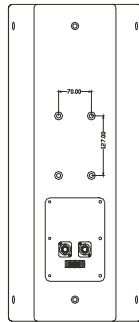
TOP VIEW



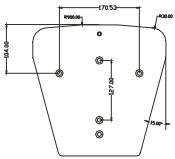
FRONT VIEW



SIDE VIEW

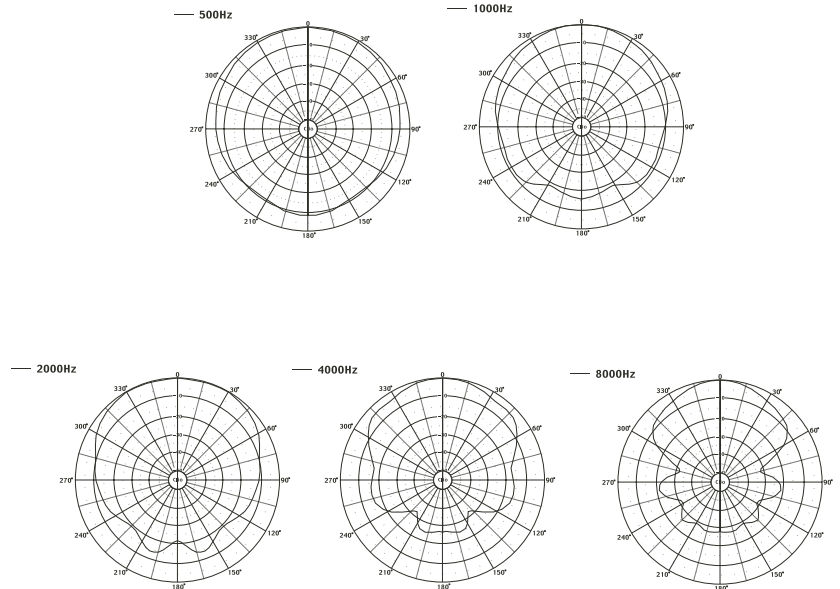


REAR VIEW

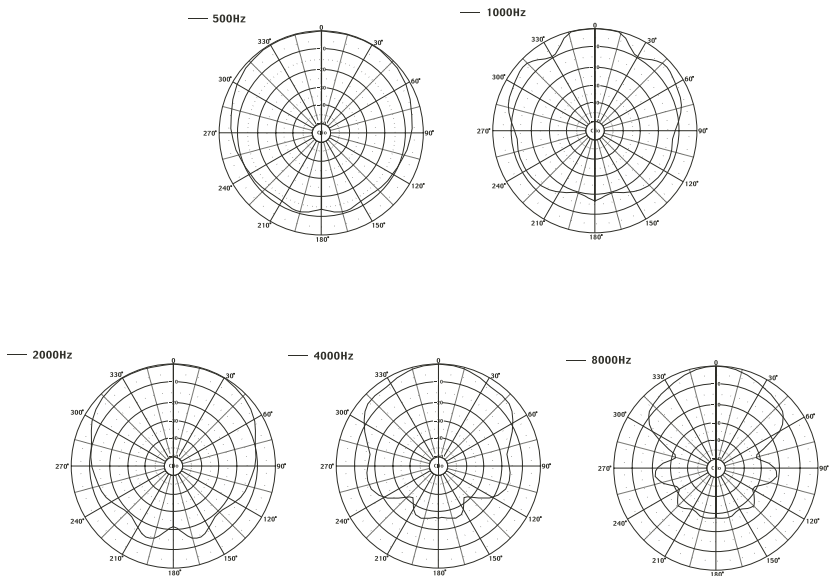


BOTTOM VIEW

Horizontal Directivity



Vertical Directivity



SPECIFICATIONS:

SYSTEM:

Power handling: 200watts RMS,400watts program, 800watts peak

Nominal Impedance: 8 Ω

Frequency response (+/-3dB): 70-20kHz

Sensitivity: 97 dB/1watt/1meter

Coverage: 70 x 70°

Maximum SPL (dB) ref Peak Power: 126dB

LF Driver: 2 x 8"

HF Section:

Coil Size: 44mm/1.7 inches

Exit Size: 25.4mm/1 inch

Diaphragm Material: Metal

Crossover Point: 2.3k

Enclosure Type: trapezoidal

Finish colour: black or white

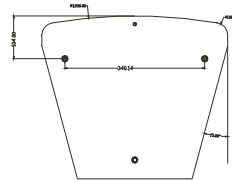
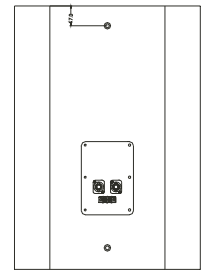
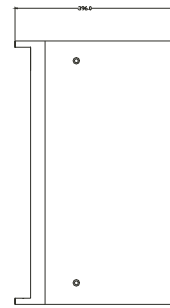
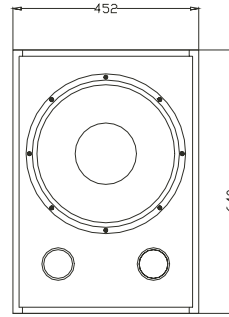
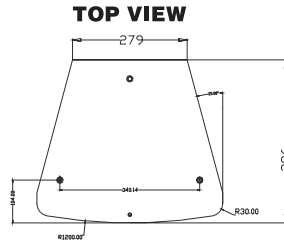
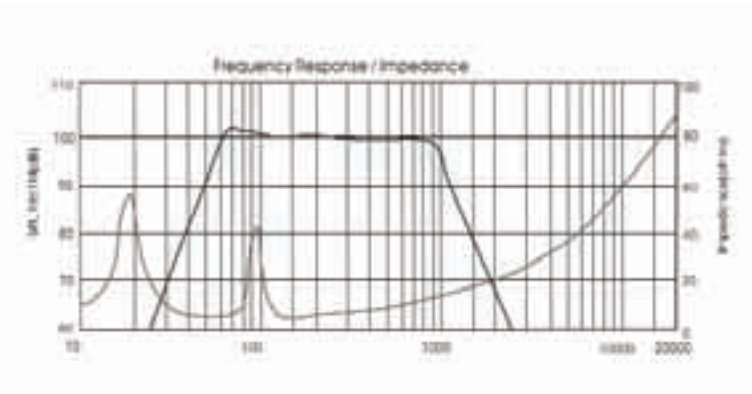
Rigging : M8 x 20

Back Panel Connectors: Speakon™ type x 2 and barrier strip

Dimensions mm HxWxD: 675 x 284 x 280

Dimensions inches HxWxD: 26.5 x 11.5 x 11

Weight: 17.22kg/38.7lbs



SPECIFICATIONS:

SYSTEM:

Power handling: 300watts RMS, 600watts program, 1200watts peak

Nominal Impedance: 8 or 4Ω

Frequency response (+/-3dB): 45-1kHz

Sensitivity: 98 dB/1watt/1meter

Maximum SPL (dB) ref Peak Power: 129dB.

System Frequency: 40Hz

Enclosure Type: Trapezoidal

Finish colour: black or white tough acrylic paint

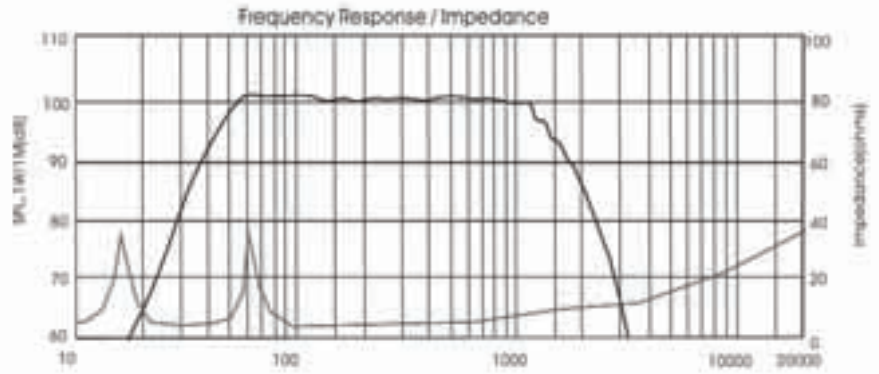
Rigging : M8 x 12

Back Panel Connectors: Speakon™ type x 2 and barrier strip

Dimensions mm HxWxD: 640 x 452 x 396

Dimensions inches HxWxD: 25.2 x 17.8 x 15.6

Weight: 25.1kg/56.4lbs



SPECIFICATIONS:

SYSTEM:

Power handling: 400watts RMS,800watts program, 1600watts peak

Nominal Impedance: 8 or 4Ω

Frequency response (+/-3dB): 35-2kHz

Sensitivity: 99 dB/1watt/1meter

Maximum SPL (dB) ref Peak Power: 131dB.

System Frequency: 35Hz

Enclosure Type: Rectangular

Finish colour: black or white tough acrylic paint

Rigging : M8 x 12

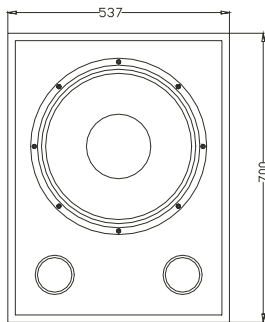
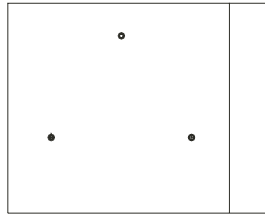
Back Panel Connectors: Speakon™ type x 2 and barrier strip

Dimensions mm HxWxD: 700 x 537 x 508

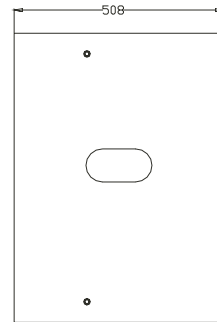
Dimensions inches HxWxD: 27.5 x 21.1x 20

Weight: 37.8kg/85lbs

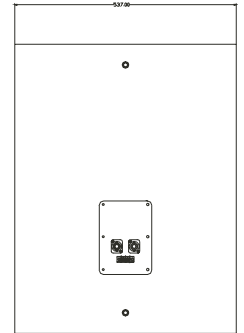
TOP VIEW



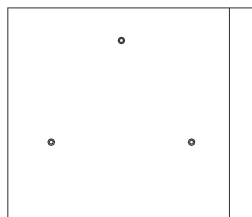
FRONT VIEW



SIDE VIEW



REAR VIEW



BOTTOM VIEW

MODEL	SI-28	SI-10	SI-12	SI-15	SI-15B	SI-18B
FREQUENCY RESPONSE@+/- 3dB	70-20k	65-20kHz	55-20kHz	45-20kHz	45-1kHz	35-2kHz
SENSITIVITY 1w@ 1m(dB)	97dB	96dB	97dB	98dB	98dB	99dB
COVERAGE Horiz.	70°	70°	70°	70°	-	-
COVERAGE vert.	70°	70°	70°	70°	-	-
POWER HANDLING(watts)						
Continuous	200	120	250	300	300	400
Music	400	240	500	600	600	800
Peak	800	480	1000	1200	1200	1600
MAX SPL (dB)	126dB	123dB	127dB	129dB	129dB	131dB
SYSTEM IMPEDANCE(Ω)	8	8	8	8	8 or 4	8 or 4
NUMBER OF DRIVERS						
Woofer	2	1	1	1	1	1
HF	1	1	1	1	-	-
LF DRIVER						
Impedance(Ω)	4	8	8	8	8 and 4	8 and 4
Driver size	8"	10"	12"	15"	15"	18"
Magnet wt	1180/41.6"	1180/41.6	1345/47.4	2467/87.1	2120/74.8	2400/84.7
Coil size	50/2"	38.1/1.5"	63.5/2.5"	76.2/3"	65/2.5"	75/3"
Frame material	metal	metal	metal	metal	metal	aluminium die cast
H F SECTION						
Impedance(Ω)	8	8	8	8		
Coil size	44/1.7"	44/1.7"	44/1.7"	44/1.7"		
Exit size	25.4/1"	25.4/1"	25.4/1"	25.4/1"		
Diaphragm material	metal	metal	metal	metal		
HF HORN						
Type	waveguide	waveguide	waveguide	wave guide		
CROSSOVER SECTION						
Effective x-over point	2.3k	2.3k	2.3k	2.3k		
System Fb	70Hz	65Hz	55Hz	45Hz	40Hz	35Hz
ENCLOSURE TYPE						
Shape	trapezoidal	trapezoidal	trapezoidal	trapezoidal	trapezoidal	rectangle
Volume L	32.1L	38.5L	54.5L	78.5L	78.5L	134L
Paint colour	black or white	black or white	black or white	black or white	black or white	black or white
Thickness(mm)	15mm	15mm	15mm	15mm	15mm	18mm
Rigging and numbers	M8 x 20	M8 x 20	M8 x 20	M8 x 20	M8 x 12	M8 x 12
Grille:						
Thickness(mm)	1.2	1.2	1.2	1.2	1.2	1.2
Type	full steel	full steel	full steel	full steel	full steel	full steel
Foam behind grille	yes	yes	yes	yes	yes	yes
Back panel:						
Input connector:						
Type -1	Speakon™	Speakon™	Speakon™	Speakon™	Speakon™	Speakon™
Number	2	2	2	2	2	2
Type-2	barrier strip	barrier strip	barrier strip	barrier strip	barrier strip	barrier strip
Number	1	1	1	1	1	1
Parallel with input connector	yes	yes	yes	yes	yes	yes
PRODUCT DIMENSIONS						
H(mm/inch)	675/26.5	512/20.1	562/22.1	640/25.1	640/25.2	700/27.5
W(mm/inch)	284/11.5	344/13.5	374/14.7	452/17.8	452/17.8	537/21.1
D(mm/inch)	280/11	330/12.9	333/13.1	396/15.6	396/15.6	508/20
WEIGHT						
Kg	17.22	14.36	16.26	23.48	25.1	37.8
Lbs	38.7	32.3	36.6	52.8	56.4	85
APPLICATIONS:	2 way	2 way	2 way	2 way	sub woofer	sub woofer



WHARFE DALE SYSTEMS DIVISION

911.401

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